

Title (en)

CATHODE FOR USE AT HIGH TEMPERATURES

Title (de)

KATHODE FÜR DEN EINSATZ BEI HOHEN TEMPERATUREN

Title (fr)

CATHODE POUR UTILISATION À HAUTE TEMPÉRATURE

Publication

EP 1481431 B1 20170712 (DE)

Application

EP 03743284 A 20030206

Priority

- DE 0300338 W 20030206
- DE 10208882 A 20020301

Abstract (en)

[origin: WO03075377A2] Disclosed is a cathode for use at high temperatures, which consists of an oxidic material that has an electric conductivity of more than 10 S at 700 to 1000 DEG C and is provided with a K₂NiF₄ layer structure, in which at least one perovskite layer borders another layer that does not have a perovskite structure. Said layer structure has the advantageous effect of providing said material with sufficient electric conductivity and a good electrocatalytic activity already at temperatures below 800 DEG C as opposed to previously known oxides. The oxidic material also has the advantage of showing good thermodynamic stability and an adequate thermal expansion behavior towards electrolytes that are used in said temperature range. Said oxidic material is therefore particularly suitable for the production of cathodes in a high-temperature fuel cell.

IPC 8 full level

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CPC (source: EP)

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